

ABSTRACT

It is to provide a method for producing a silicon epitaxial wafer, which can prevent fine unevenness from occurring on a rear main surface of a silicon epitaxial wafer and which suppresses the haze level of the whole rear main surface to 50 ppm or less.

A method for producing a silicon epitaxial wafer, includes: a hydrogen heat treatment step of arranging within a reactor a susceptor capable of mounting a silicon single crystal substrate and subjecting the silicon single crystal substrate mounted on the susceptor to heat treatment in a hydrogen atmosphere, and a vapor phase epitaxy step of epitaxially growing a silicon epitaxial layer after the hydrogen heat treatment step, wherein the silicon single crystal substrate is separated from the susceptor during the hydrogen heat treatment step, and the silicon single crystal substrate is mounted on the susceptor during the vapor phase epitaxy step.